

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An apparatus, comprising:
an integrated circuit, comprised within a serial attached small computer system interface (SAS) expander, said integrated circuit is configured as a SAS virtual end device within said SAS expander, said integrated circuit is capable of communicating with at least a host system, a first SAS storage device and a second SAS storage device, said integrated circuit comprising copy manager circuitry, said copy manager circuitry is capable of generating one or more copy commands-small computer system interface (SCSI) extended copy commands, in response to a copy command generated by said host system, to copy data from said first SAS storage device to said second SAS storage device via an said SAS expander device.
2. (Currently Amended) The apparatus of claim 1, wherein:
said SAS virtual end device is configured to appear as a SAS physical device to said host system.
~~said integrated circuit capable of receiving an extended copy command, and in response to said extended copy command, said copy manager circuitry generating one or more copy commands to copy data from said first storage device to said second storage device via said integrated circuit.~~
3. (Currently Amended) The apparatus of claim 1, wherein:
said integrated circuit within said SAS expander is further configured to determine SAS address information of at least one of said first or second SAS storage devices coupled to said SAS expander, and report the SAS address information to said host system.
~~said integrated circuit comprising a virtual end device, said copy manager comprised in said virtual end device.~~

4. (Original) The apparatus of claim 1, wherein:

said first storage device comprises a disk device, and said second storage device comprises a tape device.

5. (Currently Amended) The apparatus of claim 1, wherein:

said SAS expander comprising a plurality of ports, at least one port comprising a wide port, said wide port including a plurality of physical interfaces (PHYs), at least one of the PHYs is configured to electronically couple at least one of said first or second SAS storage devices to said SAS expander.

~~said integrated circuit comprised in an expander device, said expander device being coupled to said first storage device and said second storage device.~~

6. (Currently Amended) A method, comprising:

configuring SCSI copy manager circuitry as a serial attached small computer system interface (SAS) virtual end device within a SAS expander; and

generating, by said SCSI copy manager circuitry in response to a copy command from a host system coupled to said SAS expander, comprised in an integrated circuit, one or more SCSI copy commands to copy data from a first SAS mass storage device coupled to said SAS expander to a second SAS mass storage device coupled to said SAS expander, via said integrated circuit SAS expander.

7. (Currently Amended) The method of claim 6, further comprising:

configuring said SAS virtual end device to appear as a SAS physical device to said host system.

~~receiving an extended copy command, and in response to said extended copy command, generating, by said copy manager circuitry, one or more copy commands to copy data from one said first mass storage device to said second mass storage device via said expander device.~~

8. (Currently Amended) The method of claim 6, further comprising:
determining SAS address information of at least one of said first or second SAS storage devices coupled to said SAS expander, and report the SAS address information to said host system.
~~defining said copy manager circuitry in a virtual end device.~~
9. (Original) The method of claim 6, wherein:
said first mass storage device comprises a disk device, said second mass storage device comprises a tape device.
10. (Currently Amended) The method of claim 6, wherein:
said SAS expander comprising a plurality of ports, at least one port comprising a wide port, said wide port including a plurality of physical interfaces (PHYs), at least one of the PHYs is configured to electronically couple at least one of said first or second SAS storage devices to said SAS expander.
~~said integrated circuit comprised in an expander device, said expander device being coupled to said first storage device and said second storage device.~~
11. (Currently Amended) A system, comprising:
a circuit card coupled to a host system, said circuit card comprising an integrated circuit capable of communicating in accordance with a plurality of different using a serial attached small computer systems interface (SAS) communication protocol[s], the circuit card being capable of being coupled to a bus, and an SAS expander device capable of communicating communication with said circuit card and with at least a first SAS storage device and a second SAS storage device using said SAS communications protocol, said SAS expander device comprising SCSI copy manager circuitry configured a SAS virtual end device, said copy manager circuitry capable of generating one or more SCSI copy commands to copy data from said first SAS storage device to said second SAS storage device via said SAS expander device.

12. (Currently Amended) The system of claim 11, wherein:

said SAS virtual end device is configured to appear as a SAS physical device to said host system.

~~said expander device capable of receiving an extended copy command, and in response to said extended copy command, said copy manager circuitry generating one or more copy commands to copy data from said first storage device to said second storage device via said expander device.~~

13. (Currently Amended) The system of claim 12, wherein:

said integrated circuit within said SAS expander is further configured to determine SAS address information of at least one of said first or second SAS storage devices coupled to said SAS expander, and report the SAS address information to said host system.

~~said extended copy command being transmitted by said circuit card to said SAS expander device.~~

14. (Currently Amended) The system of claim 11, wherein:

said SAS expander comprising a plurality of ports, at least one port comprising a wide port, said wide port including a plurality of physical interfaces (PHYs), at least one of the PHYs is configured to electronically couple at least one of said first or second SAS storage devices to said SAS expander.

~~said expander device comprising a virtual end device, said copy manager comprised in said virtual end device.~~

15. (Original) The system of claim 11, wherein:

said first storage device comprises a disk device, and said second storage device comprises a tape device.

16. (Currently Amended) An article comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following operations:

configuring SCSI copy manager circuitry as a serial attached small computer system interface (SAS) virtual end device within a SAS expander; and

generating, by said SCSI copy manager circuitry in response to a copy command from a host system coupled to said SAS expander, ~~comprised in an integrated circuit~~, one or more SCSI copy commands to copy data from a first SAS mass storage device coupled to said SAS expander to a second SAS mass storage device coupled to said SAS expander, via said integrated circuit SAS expander.

17. (Currently Amended) The article of claim 16, further comprising the following operations:

configuring said SAS virtual end device to appear as a SAS physical device to said host system.

~~receiving an extended copy command, and in response to said extended copy command, generating, by said copy manager circuitry, one or more copy commands to copy data from one said first mass storage device to said second mass storage device via said integrated circuit.~~

18. (Currently Amended) The article of claim 16, further comprising the following operations:

determining SAS address information of at least one of said first or second SAS storage devices coupled to said SAS expander, and report the SAS address information to said host system.

defining said copy manager circuitry in a virtual end device comprised in said integrated circuit.

19. (Original) The article of claim 16, wherein:

said first storage device comprises a disk device, and said second storage device comprises a tape device.